MICHIGA. . EPARTMENT OF NATURAL . SOURCES

INTEROFFICE COMMUNICATION

January 11, 1985

TO: Universal Die Casting, Inc. File

FROM: Byron Lane, SWQD BL

SUBJECT: Facility Site Inspection

On January 9, 1985, Jeff Braunscheidel and I visited the Universal Die Casting Inc., Saline Plant for the purpose of observing and sampling soil and sediment contaminated by the black oily substance discussed in a 1983 Hydrogeological Evaluation. We waded along the north side of the Saline River from the Monroe Street Bridge to a point just west of the company's discharge channel. The Plant Technical Director, Mr. Robert Murray accompanied us. Our observations were as follows:

Just west of the bridge, the soil along the bank was saturated with a black oily material at the waterline. This zone extended to a point approximately 50' west of the bridge. It was noted that merely jumping up and down on the bank would cause a sheen and globs of black oily material to eminate from the bank into the river. Pictures and samples of the contaminated soil were taken.

The river bottom sediment in the vicinity of the bridge appeared clean. The sediment toward the bank was mostly sand, the rest was rock. The river current was fairly swift in this area.

In the area adjacent to the eastern most polishing lagoon, the soil at the river waterline was black. Its odor and general appearance was of an organic muck. The material caused no sheen on the water surface when disturbed, indicating the absence of oil. A sample of the soil was taken.

The remainder of the river bank appeared normal as did the sediment throughout the stretch observed.

We looked at water samples from the wells numbered 8 and 9 in the hydrogeological evaluation. Well #7 was inaccessible. The water from Well #9 was fairly clear and had no significant odor. The water from Well #8 was dark and had a strong smell similar to decaying organic material. There were a large number of suspended solids in this water. A sample of water from Well #8 was taken for analysis.

Mr. Murray said that samples from all the wells in the north side of the river were taken in December and would be analyzed by a commercial laboratory. He will forward the results to this office.

BL:sl
cc: P. Kelly, GWQD

P. Kelly

STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

RONALD O. SKOOG, Director

Reply To:

4th Floor
State Office Building
301 E. Louis Glick Hwy.
Jackson, MI 49201

January 29, 1985

Mr. Raymond Jusac
Corporate Manager of Environment & Energy
Hoover Universal, Inc.
825 Victors Way
Ann Arbor, MI 48106

SUBJECT: Universal Die Casting, Inc. - Saline, Michigan

Dear Mr. Jusac:

Per your request, I am writing to provide further detail on the parameters we requested be analyzed in the upcoming study at the Universal Die Casting, Saline plant.

1. Phenols - The phenols analysis should be for total phenols, not just the chemical phenol.

2. Polychlorinated Biphenyls (PCB) - The PCB analysis should include the following compounds:

Arochlor	1016	Arochlor	1248
"	1221	"	1254
"	1232	"	1260
"	1242		

3. Purgeble Halocarbons - The analysis for purgeble halocarbons should include the following compounds:

Bromoform	1,2-Dichloroethane
Bromodichloromethane	1,1-Dichloroethene
Bromomethane	trans-1,2-Dichloroethene
Carbon tetrachloride	1,2-Dichloropropane
Chlorobenzene	cis-1,2-Dichloropropene
Chloroethane	trans-1,3-Dichloropropene
2-Chloroethylvinyl ether	Methylene chloride
Chloroform	1,1,2,2-Tetrachloroethane
Chloromethane	Tetrachloroethene
Dibromochloromethane	1,1,1-Trichloroethane
1,2-Dichlorobenzene	1,1,2-Trichloroethane
1,3-Dichlorobenzene	Trichloroethene
1,4-Dichlorobenzene	Trichlorofluoromethane
Dichlorodifluoromethane	Vinyl chloride
1,1-Dichloroethane	

Prior to initiating the sampling program, please submit for our review the following information:

(A) The name(s) and address(es) of the laboratory or laboratories proposed to perform each of the chemical analyses.

(B) A description of the equipment and test methods proposed for the chemical analyses for each parameter.

(C) A list of the lower level of detectability expected for each parameter.

(D) A description of the overall recovery efficiency of the prepared sample where applicable.

(E) A description of the quality control procedures used by the laboratory or laboratories to ensure reliable test results.

(F) A description of the sample preservation methods used for each parameter.

If you have any questions or comments, feel free to contact me.

Sincerely,

Byron Lane

Byron Lane
Environmental Engineer
Surface Water Quality Division
(517) 788-9598

BL:lc

cc: R. Gallatin, UDC
R. Basch
R. Kooistra

October 26, 1984

TO: Ron Kooistra
Jackson District Supervisor
FROM: Pat Kelly
Geologist
SUBJECT: Hoover-Universal

I have reviewed the 1982 and 1983 hydrogeological reports, including Dan Cummins' 4-23-84 review memo, and the 9-11-84 "Plan of Evaluation" submitted by Hoover Universal, Inc. The following are my comments and suggestions for remedial action at the facility:

As documented in the hydrogeological reports, there is groundwater contamination at the facility; however, the contamination seems to be limited to the "unusable" shallow aquifer. The potable aquifer appears to be protected from contamination by a confining layer located approximately seven feet below ground level and extending to an approximate depth of 70 feet below ground level. This information is provided in the form of logging reports from the construction of two water supply wells located at the facility on the north side of the Saline River. There are no reports provided which would allow us to assume that the impervious layer is present on the south side of the river, thus at this time, we can not conclude that the "usable aquifer" beneath the sludge lagoon is protected.

The concerns I have at this point are:

1. As previously stated, the extent of the clay confining layer needs to be better defined to show that the "usable aquifer" is protected.

2. The methodology provided by Hoover-Universal for locating the perimeter of the black, oily substance (BOS) would seem appropriate, although it should not be limited to the area sketched on the provided blueprint. For example, if it is found that BOS does not extend further than line 15, (see attached print) the plan is adequate in that area. It should be noted that BOS has been observed seeping from the soils at the bank of the river, very near the Monroe Street bridge. In short, the full extent and characterization of the BOS needs to be defined (if BOS is found near Monroe Street an additional boring on the east side of the street may be necessary to determine the perimeter).

3. A boring should be taken at a point within the boundaries of the abandoned quench-oil lagoon. This boring should extend to a depth of at least the bottom of the former lagoon or to a depth just below this to determine if indeed all of the oily materials had been removed which would eliminate this area as a possible source of contaminants.

4. Measurements of the existing wastewater setting lagoons, the abandoned quench oil lagoons, and the sludge lagoon should be included on the blue-prints. I am particularly interested in the depths of the lagoons.

Due to the broad scope of problems at the Hoover Universale site, I would suggest that the remedial action plan be developed in a series of stages allowing for the analysis of the findings at each stage and review of alternatives before moving to the next stage, for example:

Stage I.

1. outline the full extent of the BOS (vertically and laterally)

2. *analyze the BOS to determine a) its characterization (i.e., what is its physical and chemical porperties) b) source and c) disposal alternatives once the soil is removed.

3. analyze the groundwater in the shallow aquifer in the region of the BOS for phenols and cyanide as well as the parameters previously requested to determine:

   a) source

   b) alternatives for disposal. The possibility of running the collected, contaminated groundwater through the wastewater treatment and NPDES discharge system should be reviewed. (Pretreatment may be necessary.)

4. provide additional evidence of confining layer continuity for the protection of potable water supply.

   *BOS analysis should include EP - toxicity and total metals

After stage I is complete and results reviewed, stage II would involve removal of contaminated soils and groundwater cleanup.

The suggestions I have provided pertain to only the north side of the SalineRRiver and do not include the Hazardous Waste Division's involvement in the abandonment procedures for the sludge lagoon on the south side of the rivermor do my comments address any surface water problems that may or may not be present.

PK:sl